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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/470,299	12/22/1999	BOON-LOCK YEO	042390.P7940	5988

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06/19/2003

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EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT PAPER NUMBER

2613

DATE MAILED: 06/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/470,299

Applicant(s)

YEO ET AL.9

Examiner

Andy S. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9,11-17 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11-17 and 19-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Response to Arguments

1. Applicants' arguments filed with respect to claims 1, 3-9, 11-17, and 19-24 as filed in Paper 14 on 3/24/03 have been fully considered but they are not persuasive.

2. Claims 1, 3-9, 11-17, and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrew et al., (hereinafter referred to as "Andrew") in view of Akiwumi-Assani et al., (hereinafter referred to as "Akiwumi-Assani"), as was set forth in the Office Action of Paper 11 as mailed on 11/18/02.

3. The Applicants present three arguments contending the Examiner's rejection of claims 1, 3-9, 11-17, and 19-24 rejected under 35 U.S.C. 103(a) as being unpatentable over Andrew et al., (hereinafter referred to as "Andrew") in view of Akiwumi-Assani et al., (hereinafter referred to as "Akiwumi-Assani"), as was set forth in the Office Action of Paper 11 as mailed on 11/18/02. However, after a careful consideration of the arguments presented, and further analysis of the references, the Examiner must respectfully disagree and maintain the grounds of rejection for the reasons that follow.

Firstly, the Applicants argue that the primary Andrew references fails to disclose "at least one independent slice to be decoded by the processors in parallel..." (Paper 14: page 6, lines 13-20; page 7, lines 1-2). The Examiner respectfully disagrees. It is noted that Andrew does disclose *parallel processing* in horizontal rows (Andrew: column 7, lines 35-52), where this parallel processing is not just restricted to encoding as purported by the Applicants (Paper 14: page 7, lines 6-8), but is also executable with regards to the mentioned decoding as well (Andrew: column 5, lines 10-15), especially since Andrew discloses local decoding modules in

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the encoding implementation (Andrew: column 7, lines 25-36). It is noted that while the primary thrust of the reference is centered around encoding, the fact that the reference acknowledges the corollary decoding processing with the stated purpose of efficient reproduction of the digitized images for use in conjunction with the encoding process makes to decoding process either a logical extension of the encoding process, or an obvious modification to the Andrew reference that one of ordinary skill in the art would readily arrive at from a casual analysis of the incorporated MPEG decoding specification (Andrew: column 1, lines 20-35; column 5, lines 10-22). Accordingly, the Examiner maintains that this feature is met.

4. Secondly, the Applicants argue that the primary Andrew references fails to disclose “at least one independent slice to be decoded by the processors in parallel...” as it pertains to the slice being a unit (Paper 14: page 6, lines 13-20; page 7, lines 1-2). The Examiner concurs, but notes that with the suggestion to analyze other sources of MPEG literature (Andrew: column 1; lines 20-35; column 5, lines 10-22), one of ordinary skill in the art would arrive at the well-known conclusion that slice processing is a basic tenet of MPEG processing, and further since Andrew’s horizontal row parallel processing implementation can have the processing units adaptable to desired dimensions (Andrew: column 7, lines 65-68), such as the dimensions of a slice, one of ordinary skill in the art would find it obvious to size the Andrew processing units to correspond to slices, in order to regulate the processing power of the DSPs in accordance with the MPEG data (Andrew: column 7, lines 35-45). However, even so, the Examiner has relied upon the secondary reference for disclosure of processing of slices, and one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re*

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Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). It is noted that the secondary Akiwumi-Assani reference discloses slice processing (Akiwumi-Assani: column 4, lines 25-35) in a decoding environment (Akiwumi-Assani: column 5, lines 30-65), and thus, one of ordinary skill in the art would find the combination with the Andrew reference more than tenable for the reasons as stated by the Examiner in the previous office action. Accordingly, the Examiner maintains that the feature is met.

Lastly, the Applicants argue that the secondary reference fails to disclose “slice parsing by multiple processors in parallel...” (Paper 7: page 7, lines 17-20; page 8, lines 1-20), as in the claims. The Examiner respectfully disagrees. It is noted that while the decode modules may not receive the parsed slices at the same time, that also means that they may not finish the slice decoding at the same instant, since some slices might be more detailed than others and might take longer to decode (Akiwumi-Assani: column 4, lines 35-42). But identical starting and ending processing times, does not define parallel processing. Rather the ability to have separate decoders concurrently process information in parallel for an instant of time is parallel processing. It is noted that the reference discloses dynamically allocation of the parallel processing power of the decoder modules based on the slice complexities (Akiwumi-Assani: column 4, lines 45-55). Furthermore, the Examiner notes that each of four Andrew DSPs would incorporate a slice parser, and thus not have to suffer a wait time for decoding processing and thus avoid the down time of a decoder as it waits to receive slices as discussed by the Applicants (Paper 14: page 7, lines 1-6). Accordingly, the Examiner maintains that this limitation is met, as well.

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Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (703)-305-4813. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S. Kelley can be reached on (703)-305-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-308-6606 for regular communications and (703)-308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-4700.

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Andy S. Rao
Primary Examiner
Art Unit 2613

ANDY RAO
PRIMARY EXAMINER

asr

June 17, 2003